

(2) naphthyl,

(3) a 5- to 10-membered monocyclic or bicyclic heterocyclic ring having 1 to 4 heteroatoms selected from the group consisting of oxygen, sulfur, or nitrogen, or

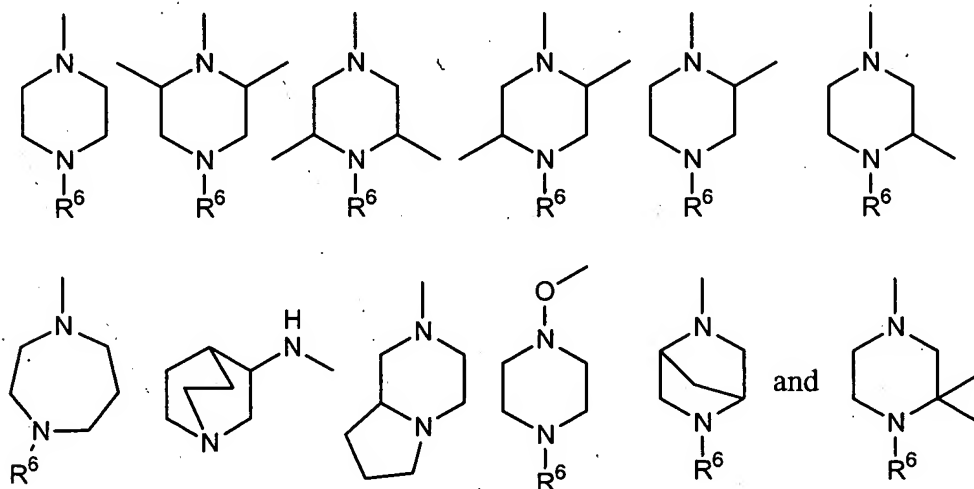
(4) -R⁹-phenyl;

wherein the phenyl, naphthyl, or heterocyclic ring is optionally substituted with halogen, C₁₋₆ alkyl, CF₃, hydroxyl, C₁₋₆ alkoxy, OCF₃, COCF₃, CN, NO₂, phenyloxy, phenyl, C₁₋₆ alkylsulfonyl, C₂₋₆ alkenyl, -NR⁷R⁸, C₁₋₆ alkylcarboxyl, formyl, -C₁₋₆ alkyl-NH-CO-phenyl, -C₁₋₆ alkyl-CO-NH-phenyl, -NH-CO-C₁₋₆ alkyl, -CO-NR⁷R⁸, or SR⁷; wherein each of R⁷ and R⁸ is independently H or C₁₋₆ alkyl; and R⁹ is C₁₋₆ alkyl or C₂₋₆ alkenyl, either of which is optionally substituted with phenyl or phenyloxy;

R² is H, phenyl, I, or C₁₋₆ alkyl;

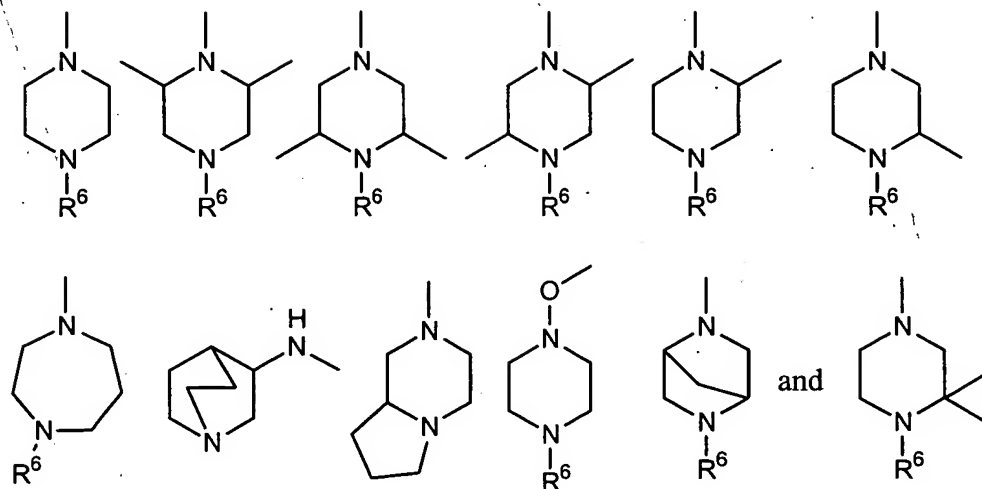
R³ is H or 3-(1-azabicyclo[2.2.2]oct-2-en)yl;

R⁴ is selected from the group consisting of:



wherein R⁶ is H, C₁₋₆ alkyl, or benzyl; and

R⁵ is H, hydroxy, C₁₋₃ alkoxy, F, NO₂, CF₃, OCF₃, or is selected from the group consisting of:



or a pharmaceutically acceptable salt, hydrate, or stereoisomer thereof,
with the proviso that when R² is alkyl, R⁴ is not H.

2 (Amended). The compound according to claim 1, wherein

Ar is

(1) phenyl that is unsubstituted or optionally mono- or poly-substituted with halogen, C₁₋₆ alkyl, CF₃, hydroxyl, C₁₋₆ alkoxy, OCF₃, CN, NO₂, phenyloxy, phenyl, alkylsulfonyl, C₁₋₆ alkenyl, -NH₂, -NHR⁷, -NR⁷R⁸, C₁₋₆ alkylcarboxyl, formyl, -NH-CO-C₁₋₆ alkyl, -CO-NR⁷R⁸, or SR⁷ wherein each of R⁷ and R⁸ is independently H or C₁₋₆ alkyl;

(2) 1-naphthyl or 2-naphthyl that is unsubstituted or optionally mono- or poly-substituted with halogen, C₁₋₆ alkyl, CF₃, hydroxyl, C₁₋₆ alkoxy, OCF₃, CN, NO₂, phenyloxy, phenyl, alkylsulfonyl, C₁₋₆ alkenyl, -NH₂, -NHR⁷, -NR⁷R⁸, C₁₋₆ alkylcarboxyl, formyl, -NH-CO-C₁₋₆ alkyl, -CO-NR⁷R⁸, or SR⁷ wherein each of R⁷ and R⁸ is independently H or C₁₋₆ alkyl;

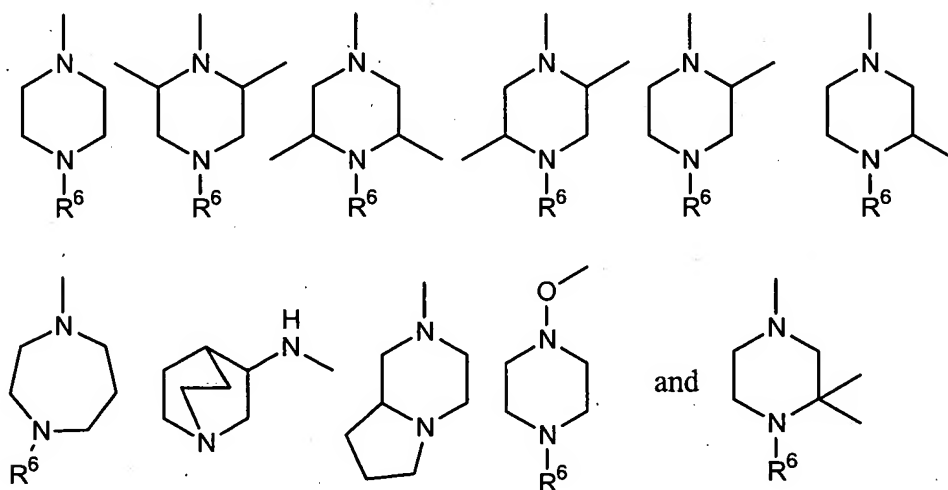
(3) cinnamoyl;

(4) benzyl;

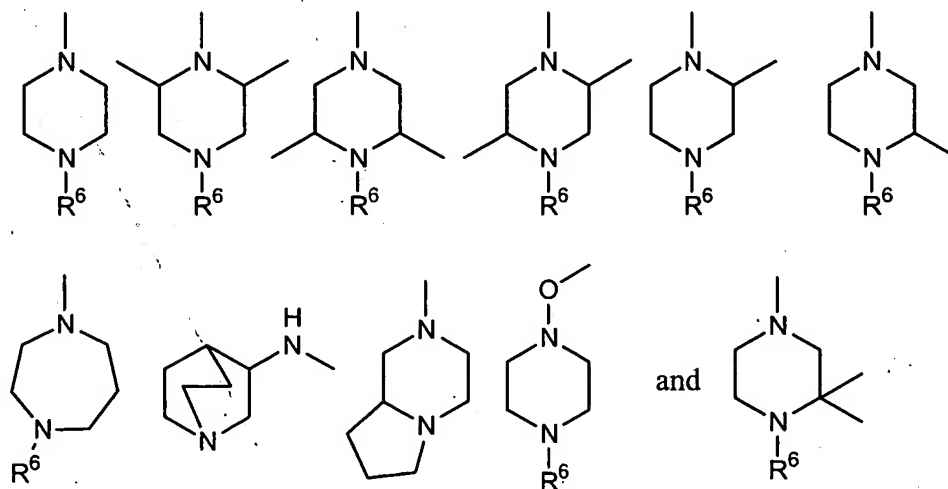
(5) 1,1-diphenylethyl;

(6) a monocyclic or bicyclic heterocyclic ring selected from the group consisting of furyl, pyrrolyl, triazolyl, diazolyl, oxazolyl, thiazolyl, oxadiazolyl, isothiazolyl, isoxazolyl, thiadiazolyl, pyrimidyl, pyrazinyl, thienyl, imidazolyl, pyrazolyl, indolyl, quinolinyl,

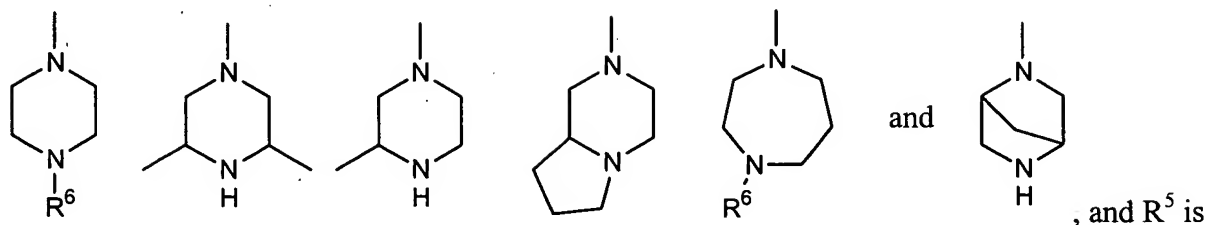
R^4 is selected from the group consisting of:



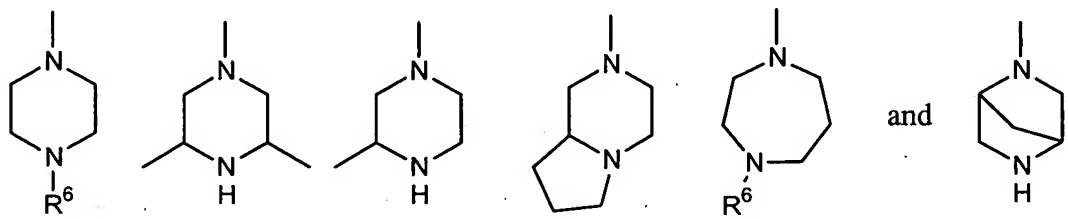
R⁵ is H, hydroxy, C₁₋₃ alkoxy, F, NO₂, CF₃, OCF₃ or is selected from the group consisting



12 (Amended). A compound according to claim 1, wherein R⁴ is independently a heterocyclic ring selected from the group consisting of:

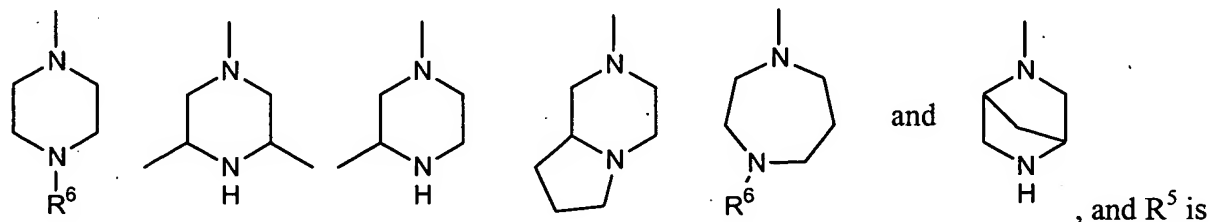


independently H or a heterocyclic ring selected from the group consisting of:

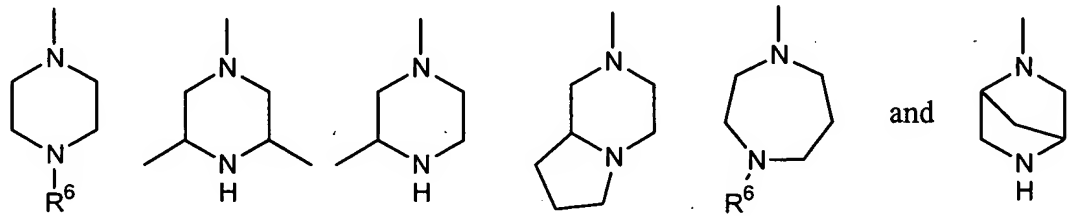


wherein R⁶ is H, C₁₋₃ alkyl, or benzyl.

13 (Amended). A compound according to claim 1, wherein Ar is phenyl, optionally substituted with F, Cl, Br, methyl, CF₃, C₁₋₄ alkoxy, OCF₃, CN, NO₂, phenyloxy, phenyl, methylsulfonyl, or -NR⁷R⁸ where each of R⁷ and R⁸ is independently H or methyl; each of R² and R³ is H; and R⁴ is independently a heterocyclic ring selected from the group consisting of:



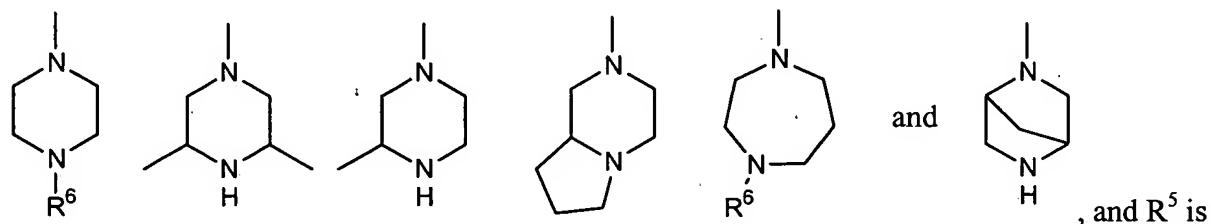
independently H or a heterocyclic ring selected from the group consisting of:



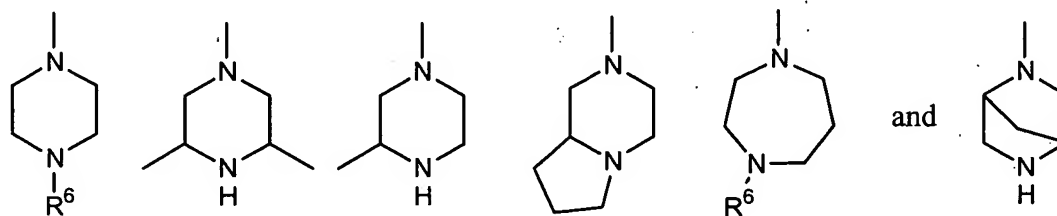
wherein R⁶ is H, C₁₋₃ alkyl, or benzyl.

14 (Amended). A compound according to claim 1, wherein Ar is 1-naphthyl or 2-naphthyl, each of which is optionally substituted with F, Cl, Br, methyl, CF₃, C₁₋₄ alkoxy, OCF₃,

CN, NO₂, phenoxy, phenyl, methylsulfonyl, or -NR⁷R⁸, where each of R⁷ and R⁸ is independently H or methyl; each of R² and R³ is H; and R⁴ is independently a heterocyclic ring selected from the group consisting of:

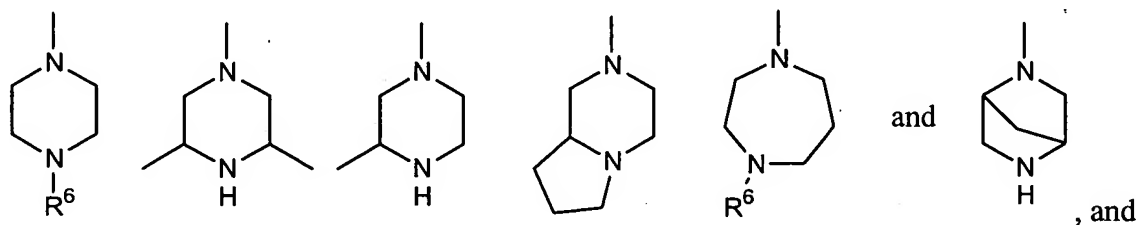


independently H or a heterocyclic ring selected from the group consisting of:

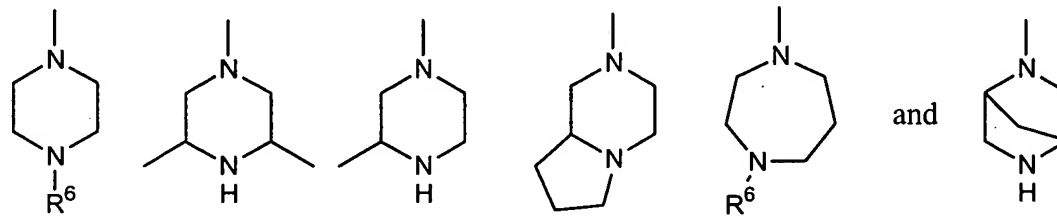


wherein R⁶ is H, C₁₋₃ alkyl, or benzyl.

15 (Amended). A compound according to claim 1, wherein Ar is a heterocyclic ring selected from the group consisting of pyridinyl, thienyl, imidazolyl, pyrazolyl, benzothienyl, and benzoxadiazolyl, each being optionally substituted with halogen or C₁₋₆ alkyl; each of R² and R³ is H; and R⁴ is independently a heterocyclic ring selected from the group consisting of:

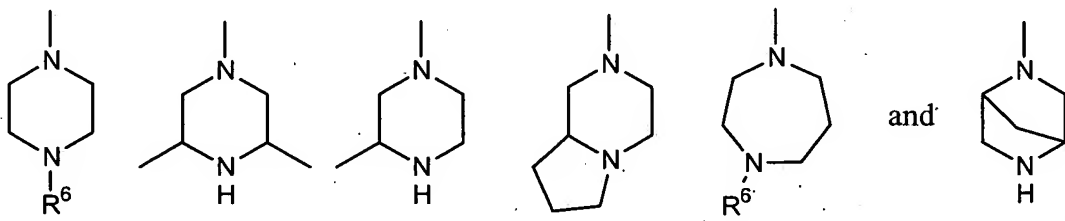


R⁵ is independently H or a heterocyclic ring selected from the group consisting of:

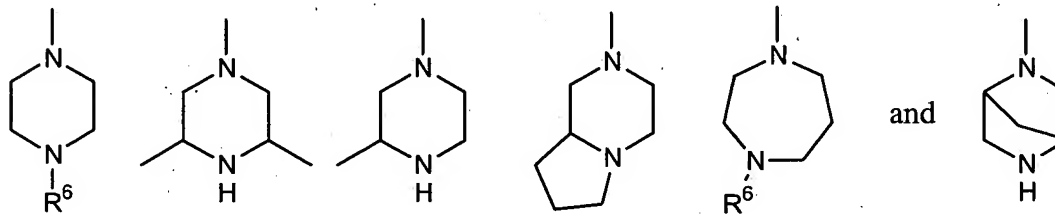


wherein R⁶ is H, C₁₋₃ alkyl, or benzyl.

16 (Amended). A compound according to claim 1, wherein Ar is 2-pyridyl, 3-pyridyl, or 4-pyridyl; each of R^2 and R^3 is H; and R^4 is independently a heterocyclic ring selected from the group consisting of:

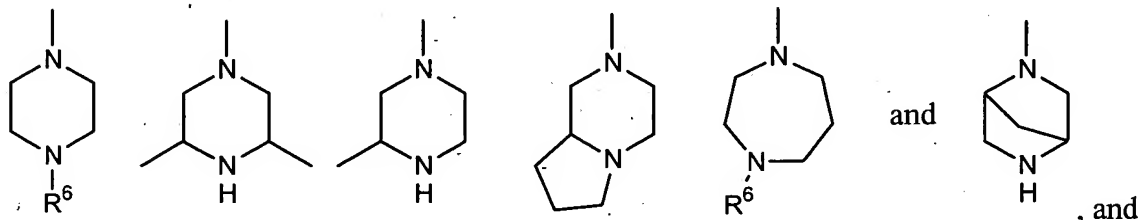


and R^5 is independently H or a heterocyclic ring selected from the group consisting of:

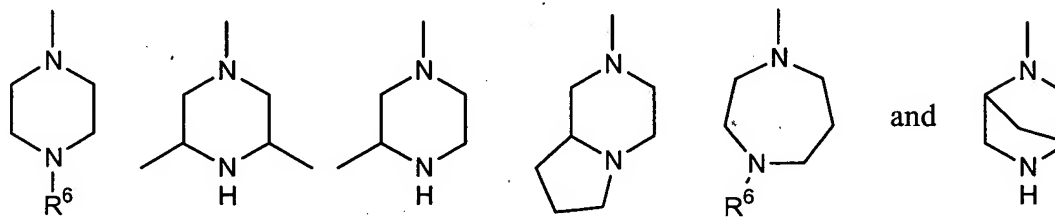


wherein R^6 is H, C_{1-3} alkyl, or benzyl.

17 (Amended). A compound according to claim 1, wherein Ar is $-R^9$ -phenyl; each of R^2 and R^3 is H; and R^4 is independently a heterocyclic ring selected from the group consisting of:



R^5 is independently H or a heterocyclic ring selected from the group consisting of:



wherein R^6 is H, C_{1-3} alkyl, or benzyl; R^9 is C_{1-3} alkyl or C_{2-3} alkenyl, either of which is optionally substituted with phenyl or phenyloxy; each phenyl being optionally substituted with F,

Cl, Br, methyl, CF₃, C₁₋₄ alkoxy, OCF₃, CN, NO₂, phenoxy, phenyl, methylsulfonyl, or -NR⁷R⁸; and each of R⁷ and R⁸ being independently H or C₁₋₆ alkyl.

18 (Amended). A compound selected from the group consisting of:

- 
- 1-phenylsulfonyl-4-piperazinylindole hydrochloride,
 - 1-[(2,5-dimethoxyphenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,
 - 1-(mesitylsulfonyl)-4-(1-piperazinyl)-1H-indole hydrochloride,
 - 1-(1-naphthylsulfonyl)-4-(1-piperazinyl)-1H-indole hydrochloride,
 - N,N-dimethyl-5-[[4-(1-piperazinyl)-1H-indol-1-yl]sulfonyl]-1-naphthalenamine hydrochloride,
 - 1-[(4-propoxyphenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,
 - 1-[(2,5-dichloro-3-thienyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,
 - 1-[(4-methoxyphenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,
 - 1-[(2,4-difluorophenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,
 - 1-[[1,1'-biphenyl]-4-ylsulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,
 - 1-[(3,4-dimethoxyphenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,
 - 5-methyl-2-methoxy-[[4-(1-piperazinyl)-1H-indol-1-yl]sulfonyl]phenyl ether hydrochloride,
 - 1-[(2,5-dichlorophenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,
 - 1-[(5-chloro-1,3-dimethyl-1H-pyrazol-4-yl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,
 - 1-[(3-chloro-2-methylphenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,
 - 2-chloro-5-(4-[[4-(1-piperazinyl)-1H-indol-1-yl]sulfonyl]phenoxy)benzonitrile hydrochloride,
 - 4-bromo-2-[[4-(1-piperazinyl)-1H-indol-1-yl]sulfonyl]phenyl methyl ether hydrochloride,
 - 4-(1-piperazinyl)-1-(3-pyridinylsulfonyl)-1H-indole hydrochloride,
 - 7-[[4-(1-piperazinyl)-1H-indol-1-yl]sulfonyl]-2-(trifluoroacetyl)-1,2,3,4-tetrahydroisoquinoline hydrochloride,

Q2

methyl 2-[[4-(1-piperazinyl)-1H-indol-1-yl]sulfonyl]phenyl sulfone hydrochloride,
1-[(4-fluorophenyl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,
1-[(5-chloro-3-methyl-1-benzothien-2-yl)sulfonyl]-4-(1-piperazinyl)-1H-indole
hydrochloride,
4-(4-methyl-1-piperazinyl)-1-(4-methylbenzenesulfonyl)-1H-indole hydrochloride
hydrochloride,
4-piperazino-N-(4-trifluoromethyl)phenylsulfonyl)indole hydrochloride,
4-(3-methylpiperazine)-(N-(4-trifluoromethyl)phenylsulfonyl)indole dihydrochloride,
4-(4-methyl-1-piperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,
4-(4-ethyl-1-piperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,
4-(1-piperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,
4-(5-aza-indolizidinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,
4-(4-methyl-1-homopiperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole
hydrochloride,
4-(3-methyl-1-piperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,
4-(*cis*-3,5-dimethyl-1-piperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole
hydrochloride,
4-(4-isopropyl-1-piperazinyl)-1-(2-methylbenzenesulfonyl)-1H-indole hydrochloride,
4-((1S,4S)-2-methyl-2,5-diazabicyclo[2.2.1]heptyl)-1-(2-methylbenzenesulfonyl)-1H-
indole hydrochloride,
4-(4-methyl-1-homopiperazinyl)-1-(benzenesulfonyl)-1H-indole hydrochloride,
4-(*cis* 3,5-dimethyl-1-piperazinyl)-1-(benzenesulfonyl)-1H-indole hydrochloride,
4-(4-ethyl-1-piperazinyl)-1-(benzenesulfonyl)-1H-indole hydrochloride,
4-piperazinyl-1-(4-nitro-benzenesulfonyl)-1H-indole hydrochloride,
4-piperazinyl-1-(4-bromo-benzenesulfonyl)-1H-indole hydrochloride,
4-piperazinyl-1-(4-chloro-benzenesulfonyl)-1H-indole hydrochloride,
4-piperazinyl-1-(*E* 2-phenyl-ethensulfonyl)-1H-indole hydrochloride,
4-piperazinyl-1-(3-trifluoromethyl-benzenesulfonyl)-1H-indole hydrochloride,
4-piperazinyl-1-(4-cyanobenzenesulfonyl)-1H-indole hydrochloride,

Az

4-piperazinyl-1-(4-chloro-7-chloro-2,1,3-benzoxadiazole sulfonyl)-1H-indole hydrochloride,
4-piperazinyl-1-(3-cyanobenzenesulfonyl)-1H-indole hydrochloride,
4-piperazinyl-1-(4-phenoxybenzenesulfonyl)-1H-indole hydrochloride,
4-piperazinyl-1-(4-chlorophenylmethanesulfonyl)-1H-indole hydrochloride,
4-piperazinyl-1-(4-methylphenylmethanesulfonyl)-1H-indole hydrochloride,
4-piperazinyl-1-(1,1-diphenylethanesulfonyl)-1H-indole hydrochloride,
4-piperazinyl-1-(4-trifluoromethoxybenzenesulfonyl)-1H-indole hydrochloride,
4-piperazinyl-1-(5-[(benzoylamino)methyl]thiophene-2-sulfonyl)-1H-indole hydrochloride,
1-[(N-methyl-1H-imidazol-4-yl)sulfonyl]-4-(1-piperazinyl)-1H-indole hydrochloride,
2-iodo-1-(phenylsulfonyl)-4-(1-piperazinyl)-1H-indole hydrochloride,
2-phenyl-1-(phenylsulfonyl)-4-(1-piperazinyl)-1H-indole hydrochloride,
4-piperazinyl-2-methyl-1-benzosulfonylindole trifluoroacetate, and
1-phenylsulfonyl-4-(homopiperazinyl)-indole hydrochloride.

Az

22 (Amended). A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier.

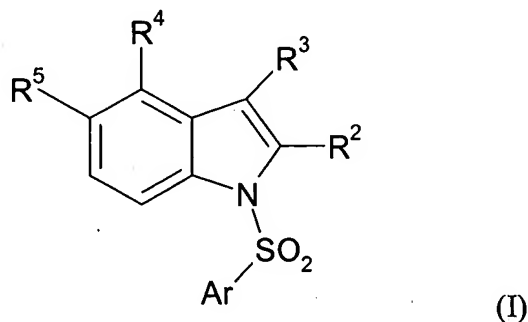
24 (Amended). A method of treatment of a disease mediated by the serotonin related 5-HT₆ receptor comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 1.

Aut

25 (Amended). A method of treatment of a disease mediated by the serotonin related 5-HT₆ receptor comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 18. --

Please add claims 28-47.

-- 28 (New). A compound of formula (I):



wherein

Ar is

(1) phenyl,

(2) naphthyl,

(3) a 5- to 10-membered monocyclic or bicyclic heterocyclic ring having 1 to 4 heteroatoms selected from the group consisting of oxygen, sulfur, or nitrogen, or

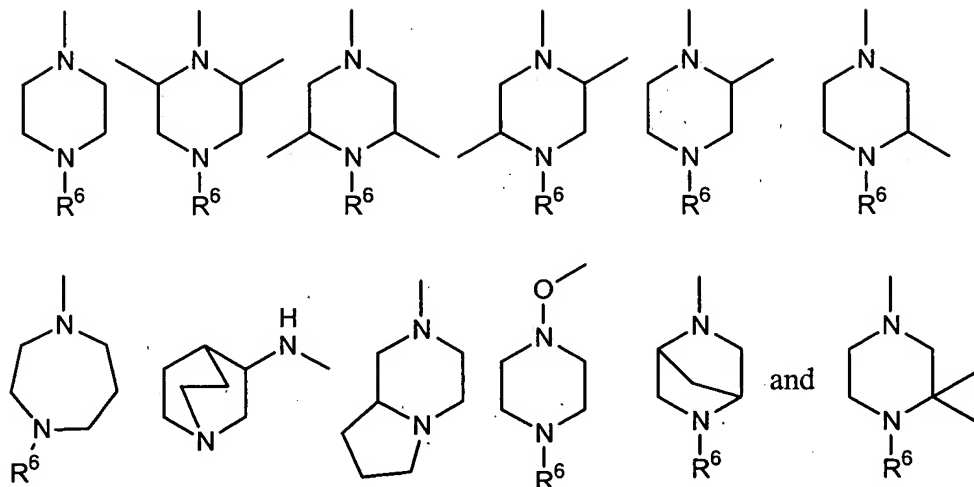
(4) -R⁹-phenyl;

wherein the phenyl, naphthyl, or heterocyclic ring is optionally substituted with halogen, C₁₋₆ alkyl, CF₃, hydroxyl, C₁₋₆ alkoxy, OCF₃, COCF₃, CN, NO₂, phenyloxy, phenyl, C₁₋₆ alkylsulfonyl, C₂₋₆ alkenyl, -NR⁷R⁸, C₁₋₆ alkylcarboxyl, formyl, -C₁₋₆ alkyl-NH-CO-phenyl, -C₁₋₆ alkyl-CO-NH-phenyl, -NH-CO-C₁₋₆ alkyl, -CO-NR⁷R⁸, or SR⁷; wherein each of R⁷ and R⁸ is independently H or C₁₋₆ alkyl; and R⁹ is C₁₋₆ alkyl or C₂₋₆ alkenyl, either of which is optionally substituted with phenyl or phenyloxy;

R² is H, phenyl, I, or C₁₋₆ alkyl;

R³ is H or 3-(1-azabicyclo[2.2.2]oct-2-en)yl;

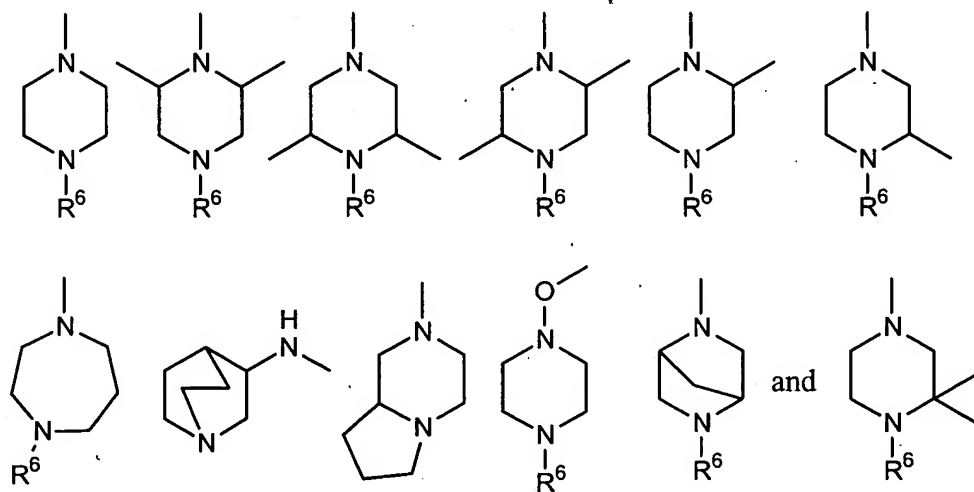
R⁴ is H or is selected from the group consisting of:



wherein R⁶ is H, C₁₋₆ alkyl, or benzyl; and

R⁵ is hydroxy, C₁₋₃ alkoxy, F, NO₂, CF₃, OCF₃, or is selected from the group consisting

of:



or a pharmaceutically acceptable salt, hydrate, or stereoisomer thereof,

with the proviso that when R² is alkyl, R⁴ is not H.

29 (New). The compound of claim 1, wherein R⁵ is H.

30 (New). The compound of claim 28, wherein R⁵ is H.

31 (New). The compound of claim 28, selected from the group consisting of:

N-benzenesulfonyl-5-(4-methylpiperazin-1-yl)-indole,
N-(4-methylbenzenesulfonyl)-5-(4-methylpiperazin-1-yl)-indole,
N-benzenesulfonyl-5-(4-isopropylpiperazin-1-yl)-indole,
N-(4-methylbenzenesulfonyl)-5-(4-isopropylpiperazin-1-yl)-indole,
N-(3,4-dimethoxybenzenesulfonyl)-5-(4-propylpiperazin-1-yl)-indole, hydrochloride,
N-(3-fluorobenzenesulfonyl)-5-(4-propylpiperazin-1-yl)-indole, hydrochloride,
N-(4-propylbenzenesulfonyl)-5-(4-methylpiperazin-1-yl)-indole, hydrochloride,
N-(1-naphthalenesulfonyl)-5-(4-methylpiperazin-1-yl)-indole, hydrochloride,
N-(biphenyl-4-sulfonyl)-5-(4-methylpiperazin-1-yl)-indole, hydrochloride,
N-(4-methoxybenzenesulfonyl)-5-(4-methylpiperazin-1-yl)-indole, hydrochloride,
N-(3,4-dimethoxybenzenesulfonyl)-5-(4-methylpiperazin-1-yl)-indole, hydrochloride,
N-(2,4-difluorobenzenesulfonyl)-5-(4-methylpiperazin-1-yl)-indole, hydrochloride,
N-(4-methoxybenzenesulfonyl)-5-(4-benzylpiperazin-1-yl)-indole, hydrochloride,
N-(2,4-difluorobenzenesulfonyl)-5-(4-benzylpiperazin-1-yl)-indole, hydrochloride,
N-(4-butoxybenzenesulfonyl)-5-(4-benzylpiperazin-1-yl)-indole, hydrochloride,
N-(3,4-dimethoxybenzenesulfonyl)-5-(4-benzylpiperazin-1-yl)-indole, hydrochloride,
N-(biphenyl-4-sulfonyl)-5-(4-benzylpiperazin-1-yl)-indole, hydrochloride,
N-(naphthalene-2-sulfonyl)-5-(4-benzylpiperazin-1-yl)-indole, hydrochloride,
N-(4-propylbenzenesulfonyl)-5-(4-benzylpiperazin-1-yl)-indole, hydrochloride,
N-(3-fluorobenzenesulfonyl)-5-(4-benzylpiperazin-1-yl)-indole, hydrochloride,
N-(4-methoxybenzenesulfonyl)-5-(piperazin-1-yl)-indole, hydrochloride,
N-(2,4-difluorobenzenesulfonyl)-5-(piperazin-1-yl)-indole, hydrochloride,
N-(4-butoxybenzenesulfonyl)-5-(piperazin-1-yl)-indole, hydrochloride,
N-(3,4-dimethoxybenzenesulfonyl)-5-(piperazin-1-yl)-indole, dihydrochloride,
N-(biphenyl-4-sulfonyl)-5-(piperazin-1-yl)-indole, dihydrochloride,
N-(naphthalene-2-sulfonyl)-5-(piperazin-1-yl)-indole, dihydrochloride,
N-(4-propylbenzenesulfonyl)-5-(piperazin-1-yl)-indole, dihydrochloride,

Q5
Cont

N-(3-fluorobenzenesulfonyl)-5-(piperazin-1-yl)-indole, dihydrochloride,
N-benzenesulfonyl-5-(piperazin-1-yl)-indole, dihydrochloride.

32 (New). A compound that is 3-(1-azabicyclo[2.2.2]oct-2-en-3-yl)-1-[(4-fluorophenyl)sulfonyl]-1H-indole.

33 (New). A pharmaceutical composition comprising a compound of claim 28 or 30 and a pharmaceutically acceptable carrier.

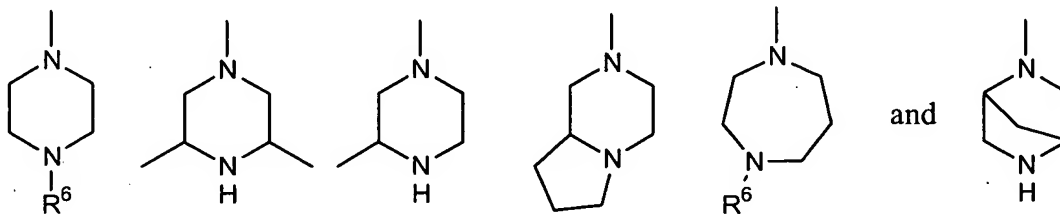
34 (New). A method of treatment of a disease mediated by the serotonin related 5-HT₆ receptor comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 28.

35 (New). The method of claim 34; wherein the disease is a CNS disorder.

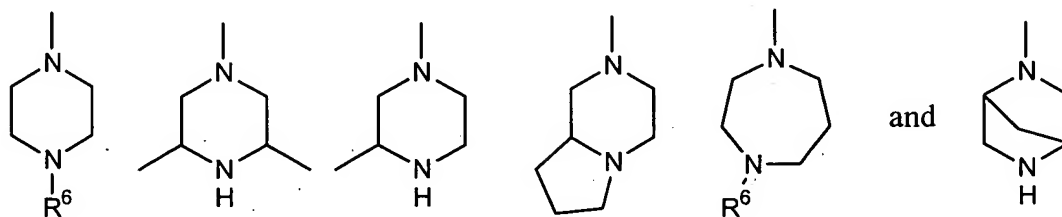
36 (New). A method of treating memory disorder, schizophrenia, Parkinson's disease, depression, or attention deficit hyperactive disorders comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 1 or 28.

37 (New). A method of treating memory disorder, schizophrenia, Parkinson's disease, depression, or attention deficit hyperactive disorders comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 29 or 30.

38 (New). A compound according to claim 28, wherein R⁴ is independently H or a heterocyclic ring selected from the group consisting of:

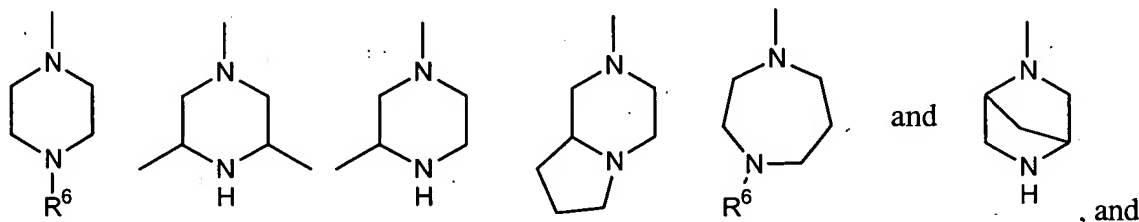


and R^5 is independently a heterocyclic ring selected from the group consisting of:

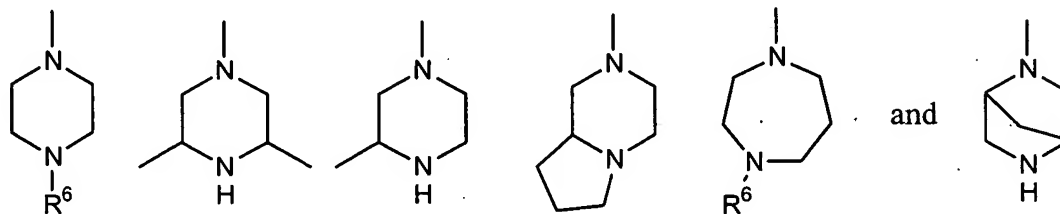


wherein R^6 is H, C_{1-3} alkyl, or benzyl.

39 (New). A compound according to claim 28, wherein Ar is phenyl, optionally substituted with F, Cl, Br, methyl, CF_3 , C_{1-4} alkoxy, OCF_3 , CN, NO_2 , phenyloxy, phenyl, methylsulfonyl, or $-NR^7R^8$ where each of R^7 and R^8 is independently H or methyl; each of R^2 and R^3 is H; and R^4 is independently H or a heterocyclic ring selected from the group consisting of:

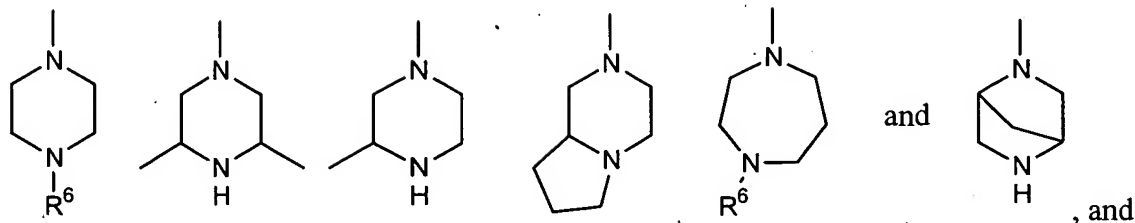


R^5 is independently a heterocyclic ring selected from the group consisting of:

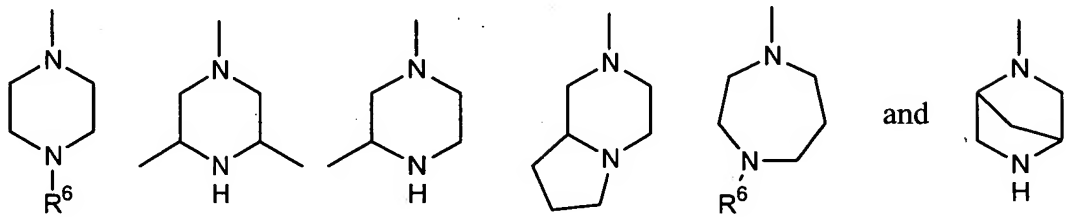


wherein R^6 is H, C_{1-3} alkyl, or benzyl.

40 (New). A compound according to claim 28, wherein Ar is 1-naphthyl or 2-naphthyl, each of which is optionally substituted with F, Cl, Br, methyl, CF_3 , C_{1-4} alkoxy, OCF_3 , CN, NO_2 , phenyloxy, phenyl, methylsulfonyl, or $-NR^7R^8$, where each of R^7 and R^8 is independently H or methyl; each of R^2 and R^3 is H; and R^4 is independently H or a heterocyclic ring selected from the group consisting of:

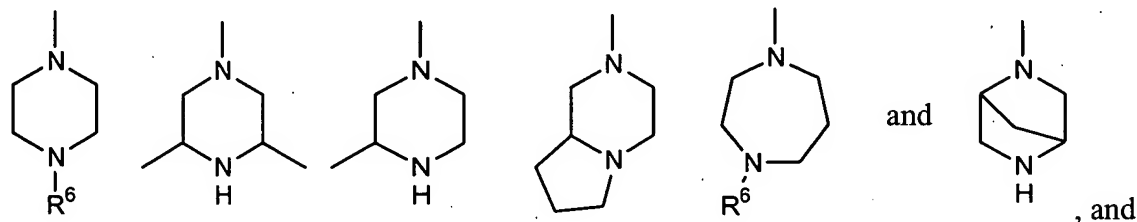


R^5 is independently a heterocyclic ring selected from the group consisting of:

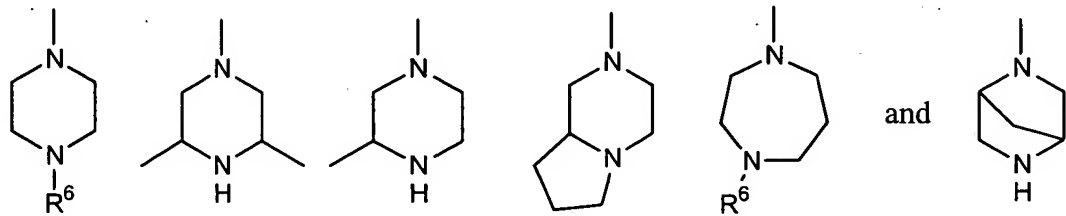


wherein R^6 is H, C_{1-3} alkyl, or benzyl.

41 (New). A compound according to claim 1, wherein Ar is a heterocyclic ring selected from the group consisting of pyridinyl, thienyl, imidazolyl, pyrazolyl, benzothienyl, and benzoxadiazolyl, each being optionally substituted with halogen or C_{1-6} alkyl; each of R^2 and R^3 is H; and R^4 is independently H or a heterocyclic ring selected from the group consisting of:

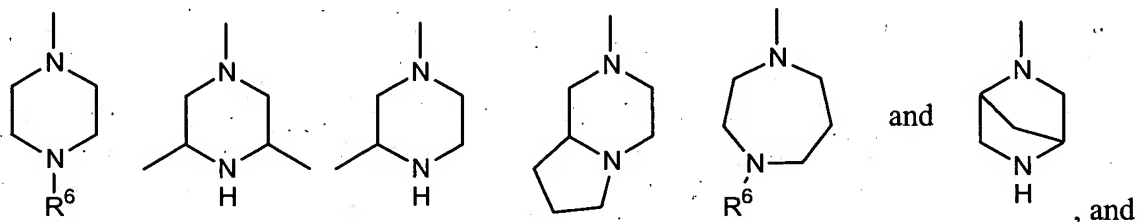


R^5 is independently a heterocyclic ring selected from the group consisting of:

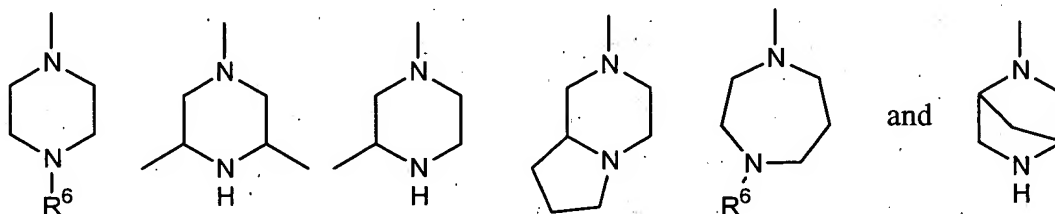


wherein R^6 is H, C_{1-3} alkyl, or benzyl.

42 (New). A compound according to claim 28, wherein Ar is 2-pyridyl, 3-pyridyl, or 4-pyridyl; each of R^2 and R^3 is H; and R^4 is independently H or a heterocyclic ring selected from the group consisting of:

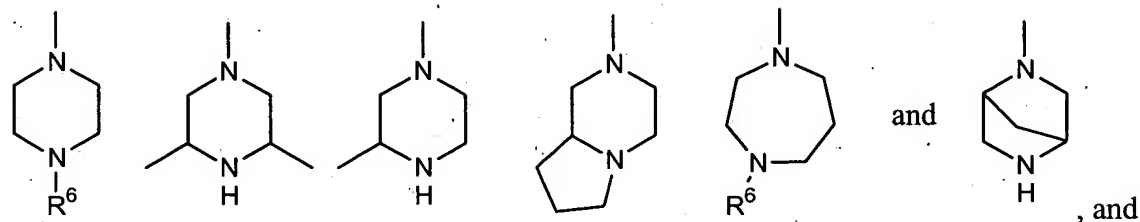


R^5 is independently a heterocyclic ring selected from the group consisting of:

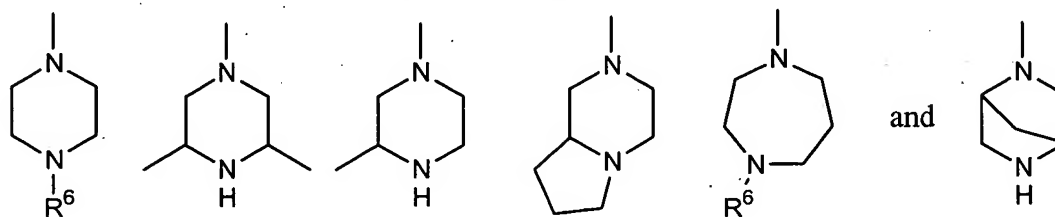


AS
wherein R^6 is H, C_{1-3} alkyl, or benzyl.

43 (New). A compound according to claim 1, wherein Ar is $-R^9$ -phenyl; each of R^2 and R^3 is H; and R^4 is independently H or a heterocyclic ring selected from the group consisting of:



R^5 is independently a heterocyclic ring selected from the group consisting of:



wherein R^6 is H, C_{1-3} alkyl, or benzyl; R^9 is C_{1-3} alkyl or C_{2-3} alkenyl, either of which is optionally substituted with phenyl or phenyloxy; each phenyl being optionally substituted with F,

Cl, Br, methyl, CF₃, C₁₋₄ alkoxy, OCF₃, CN, NO₂, phenyloxy, phenyl, methylsulfonyl, or -NR⁷R⁸; and each of R⁷ and R⁸ being independently H or C₁₋₆ alkyl.

44 (New). A method of treatment of a disease mediated by the serotonin related 5-HT₆ receptor comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 29.

45 (New). A method of treatment of a disease mediated by the serotonin related 5-HT₆ receptor comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 31.

46 (New). A pharmaceutical composition comprising a compound of claim 29 and a pharmaceutically acceptable carrier.

47 (New). The compound according to claim 28, wherein

Ar is

(1) phenyl that is unsubstituted or optionally mono- or poly-substituted with halogen, C₁₋₆ alkyl, CF₃, hydroxyl, C₁₋₆ alkoxy, OCF₃, CN, NO₂, phenyloxy, phenyl, alkylsulfonyl, C₁₋₆ alkenyl, -NH₂, -NHR⁷, -NR⁷R⁸, C₁₋₆ alkylcarboxyl, formyl, -NH-CO-C₁₋₆ alkyl, -CO-NR⁷R⁸, or SR⁷ wherein each of R⁷ and R⁸ is independently H or C₁₋₆ alkyl;

(2) 1-naphthyl or 2-naphthyl that is unsubstituted or optionally mono- or poly-substituted with halogen, C₁₋₆ alkyl, CF₃, hydroxyl, C₁₋₆ alkoxy, OCF₃, CN, NO₂, phenyloxy, phenyl, alkylsulfonyl, C₁₋₆ alkenyl, -NH₂, -NHR⁷, -NR⁷R⁸, C₁₋₆ alkylcarboxyl, formyl, -NH-CO-C₁₋₆ alkyl, -CO-NR⁷R⁸, or SR⁷ wherein each of R⁷ and R⁸ is independently H or C₁₋₆ alkyl;

(3) cinnamoyl;

(4) benzyl;

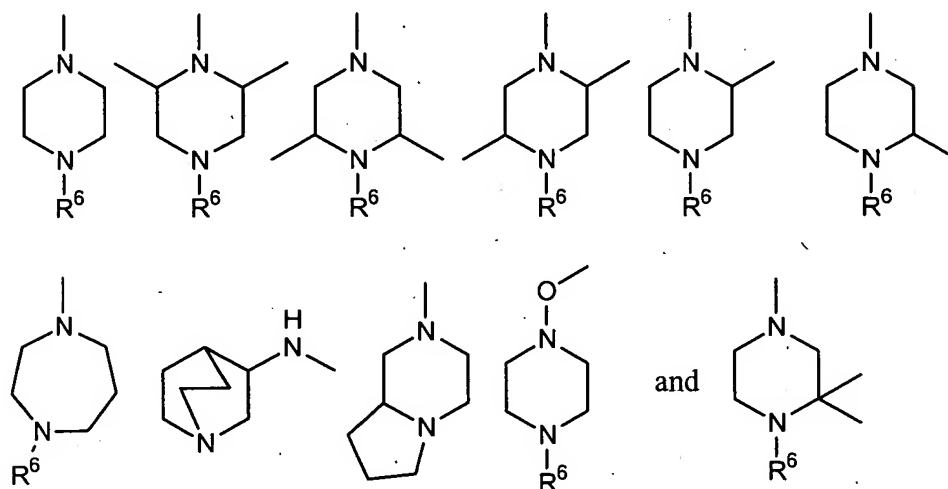
(5) 1,1-diphenylethyl;

(6) a monocyclic or bicyclic heterocyclic ring selected from the group consisting of furyl, pyrrolyl, triazolyl, diazolyl, oxazolyl, thiazolyl, oxadiazolyl, isothiazolyl, isoxazolyl, thiadiazolyl, pyrimidyl, pyrazinyl, thienyl, imidazolyl, pyrazolyl, indolyl, quinolinyl,

isoquinolinyl, benzofuryl, benzothienyl, and benzoxadiazolyl, said heterocyclic ring being optionally mono- or di-substituted substituted with halogen or

C₁₋₆ alkyl;

R⁴ is H or is selected from the group consisting of:



wherein R⁶ is H, C₁₋₆ alkyl, or benzyl; and

R⁵ is hydroxy, C₁₋₃ alkoxy, F, NO₂, CF₃, OCF₃ or is selected from the group consisting of:

